



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/089,968	08/27/2002	David Lyons	101303/0506194	1189

26874 7590 03/22/2004

FROST BROWN TODD, LLC
2200 PNC CENTER
201 E. FIFTH STREET
CINCINNATI, OH 45202

EXAMINER

THEISEN, DOUGLAS J


ART UNIT

PAPER NUMBER

1724

DATE MAILED: 03/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/089,968	Applicant(s) LYONS ET AL.	
	Examiner Douglas J. Theisen	Art Unit 1724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 23 and 24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,6-9,18 and 22 is/are rejected.
- 7) ☒ Claim(s) 1,2,4,5,10-17 and 19-21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 August 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>05/23/02</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Oath/Declaration

1. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because: The filing date for the Great Britain application is incorrect. According to the filed priority papers the filing date is 9 October 1999, not 10 October 1999.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: 8a in figure 3. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
3. New corrected drawings are required in this application because the margins on the drawing sheets are too small. For example, the left side of figure 2 is missing the "3" in reference number "30". Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Specification

4. Applicant is reminded of the proper language and format for an abstract of the disclosure.

Art Unit: 1724

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

5. Claim 1 is objected to because of the following informalities: In line 4 of the claim "inlet section" should be designated "[2]" and "settling tank" should be designated "[1]". Appropriate correction is required.

6. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: Claim 1 refers to "sump [21]". There is no mention in the specification of a "sump". On page 10, lines 13-16 there is mention of "base [21]" and "a well".

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 6, 7, 9, 18 and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. Claim 6 recites the limitation ""weir means [13]" in lines 1 and 2. There is insufficient antecedent basis for this limitation in the claim. It appears that this claim should depend from claim 5, not claim 4.

Art Unit: 1724

10. Claim 7 recites the limitation "the base [41,111]" in line 1. There is insufficient antecedent basis for this limitation in the claim.
11. Claim 7 recites the limitation "pre-reaction vessel [11]" in line 2. There is insufficient antecedent basis for this limitation in the claim.
12. Claim 9 recites the limitation "pre-reaction vessel [11]" in lines 2 and 3. There is insufficient antecedent basis for this limitation in the claim.
13. Claim 18 recites the limitation "radially outer face [54]" in lines 1 and 2. There is insufficient antecedent basis for this limitation in the claim.
14. Claim 22 recites the limitation "the outlet end [33]" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 1, 3, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent no. 2,215,185 to Lund in view of U.S. patent no. 2,122,074 to Stevenson.
17. Lund describes an apparatus which comprises a settling tank (tank or basin 15) having an inlet section (passage 33 and flocculation zone 27), inlet means comprising an inlet conduit (feed pipe 23) leading to a pre-reaction vessel (passage 33) which communicates at its base with a sump (sump 21) in the inlet section of the settling tank, removal means from the sump (sediment or sludge discharge pipe 22) and means for sweeping along the tank from an outlet section

Art Unit: 1724

towards a sump (endless belts or chains 40), and an outlet over weir means (weir 25 and discharge pipe 24). Lund also describes communication between a pre-reaction vessel and a settling tank via a submerged throat (area below lower edge 34 and bottom passage 30). See figure 1 and page 2, left column, line 45 to page 3, right column, line 22.

18. Lund does not disclose a valve in the inlet conduit. Lund also does not disclose a dosing means. However, Lund does disclose that the liquid is either previously dosed or treated. See page 3, right column, lines 11-22.

19. Stevenson describes a dosing means (4 and line 5) in an inlet portion or conduit (line 7) of a settling tank (settling basin 11). See the figure and page 2, right column, lines 44-47.

20. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to provide Lund with a dosing means in an inlet portion or conduit as in Stevenson since Lund indicates that the liquid could be previously dosed or treated. Also, it would be obvious to provide the feed pipe 23 of Lund with a valve in order to shut off flow to the tank or basin 15 so that maintenance could be performed on the apparatus.

21. Claims 1, 3, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent no. 4,111,802 to Louboutin in view of U.S. patent no. 2,122,074 to Stevenson.

22. Louboutin describes an apparatus which comprises a settling tank (water treatment apparatus) having an inlet section (reaction zone 2), inlet means comprising an inlet conduit (raw water inlet pipe 24) leading to a pre-reaction vessel (reaction zone 2) which communicates at its base with a sump (V-shaped troughs 28) in the inlet section of the settling tank, removal means from the sump (withdrawal pipes 30) and means for sweeping along the tank from an outlet section towards a sump (endless conveyor including scraping blades 72), and an outlet over weir

Art Unit: 1724

means (channels 74 and 76 with perforated pipes 78). Louboutin also describes communication between a pre-reaction vessel and a settling tank via a submerged throat (opening 20). See figures 2 and 4 and column 4, line 55 to column 7, line 29.

23. Louboutin does not disclose a valve in the inlet conduit. Louboutin also does not disclose a dosing means. However, Louboutin does disclose that water receives chemical reaction substances in a known manner prior to entry into reaction zone 2. See column 7, lines 25-29.

24. Stevenson describes a dosing means (4 and line 5) in an inlet portion or conduit (line 7) of a settling tank (settling basin 11). See the figure and page 2, right column, lines 44-47.

25. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to provide Louboutin with a dosing means in an inlet portion or conduit as in Stevenson since Louboutin indicates that the water receives chemical reaction substances prior to entry into reaction zone 2. Also, it would be obvious to provide the raw water inlet pipe 24 of Louboutin with a valve in order to shut off flow to the water treatment apparatus so that maintenance could be performed on the apparatus.

Allowable Subject Matter

26. Claims 6, 7, 9, 18, and 22 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

27. Claims 2, 4, 5, 10-17, and 19-21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

28. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

29. U.S. patent no. 2,322,415 to Buckbee is cited of interest because it describes a sand dewatering wheel having buckets.

30. U.S. patent no. 2,647,085 to Tolman is cited of interest because it describes apparatus for removing grit from sludge having a de-watering bucket elevator.

31. U.S. patent no. 2,468,864 to Campbell is cited of interest because it describes a sewage treatment and oil and water separation system having a belt with scrapers to move sludge to a well.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Douglas J. Theisen whose telephone number is 571-272-1168. The examiner can normally be reached on Monday, Tuesday, and Wednesday 6:30 until 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on 571-272-1156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1724

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

djt

DUANE SMITH
PRIMARY EXAMINER

12-~~11~~
3-9-04